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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet **1** of **6**

Complete if Known

Application Number	10/803,097
Filing Date	March 18, 2004
First Named Inventor	Richard L. CUNNINGHAM
Art Unit	<del>3653</del> 2632
Examiner Name	<del>Unassigned</del> Mullen
Attorney Docket Number	IMMR-104/00US

**U.S. PATENT DOCUMENTS**

Examiner	Cite No. <sup>1</sup>	Document Number Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
TM		6,422,941	7/23/2002	Thomer et al.	
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		4,708,656	11/24/1987	De Vries et al.	

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Application Number	10/803,097
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First Named Inventor	Richard L. CUNNINGHAM
Art Unit	3653-2632
Examiner Name	Unassigned- Mullen
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TM		4,599,070	7/8/1986	Hladky et al.	
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		3,157,853	11/17/1964	Hirsch	
		2,972,140	2/14/1961	Hirsch	

Examiner Initials <sup>3</sup>	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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TM		EP	0349086		1/3/1990	Stork Kwant B.V.	
		JP	H2-185278		7/19/1990	Taito Corporation	
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		JP	H7-24147		1/27/1995	Sega Corporation	
		JP	H5-192449		8/3/1993	Taito Corporation	

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		Filing Date	March 18, 2004
		First Named Inventor	Richard L. Cunningham
		Art Unit	3653-2632
		Examiner Name	Unassigned-Mullen
		Attorney Docket Number	IMMR-104/00US
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TM		BAIGRIE, "Electric Control Loading - A Low Cost, High Performance Alternative," <i>Proceedings of Interservice/Industry Training Systems Conference</i> , pp. 247-254, November 6-8, 1990.	
		IWATA, "Pen-based Haptic Virtual Environment," 0-7803-1363-1/93 IEEE, pp. 287-292, 1993.	
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		BURDEA et al., "Distributed Virtual Force Feedback, Lecture Notes for Workshop on Force Display in Virtual Environments and Its Application to Robotic Teleoperation," 1993 IEEE International Conference on Robotics and Automation, pp. 25-44, 05/02/1993.	
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✓		RUSSO, "Controlling Dissipative Magnetic Particle Brakes in Force Reflective Devices," DSC-Vol. 42, <i>Advances in Robotics</i> , pp. 63-70, ASME 1992.	

Examiner Signature	Mullen	Date Considered	3/3/06
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>		Application Number	10/803,097
		Filing Date	March 18, 2004
		First Named Inventor	Richard L. Cunningham
		Art Unit	<del>9853</del> 2632
		Examiner Name	Unassigned Mullen
		Attorney Docket Number	IMMR-104/00US
(use as many sheets as necessary)			
Sheet	4	of	6

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
TM		KONTARINIS et al., "Display of High-Frequency Tactile Information to Teleoperators," <i>Telemanipulator Technology and Space Telerobotics</i> , Won S. Kim, Editor, Proc. SPIE Vol. 2057, pp. 40-60, Sep. 7-9, 1993.	
		PATRICK et al., "Design and Testing of A Non-reactive, Fingertip, Tactile Display for Interaction with Remote Environments," <i>Cooperative Intelligent Robotics In Space</i> , Rui J. deFigueiredo et al., Editor, Proc. SPIE Vol. 1387, pp. 215-222, 1990.	
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✓		RABINOWITZ et al., "Multidimensional tactile displays: Identification of vibratory intensity, frequency, and contactor area," <i>Journal of The Acoustical Society of America</i> , Vol. 82, No. 4, October 1987.	

Examiner Signature	Mullen	Date Considered	3/3/06
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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet 5 of 6**Complete if Known**

Application Number	10/803,097
Filing Date	March 18, 2004
First Named Inventor	Richard L. Cunningham
Art Unit	<del>3659</del> 2632
Examiner Name	Unassigned Mullen
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TM		BEJCZY et al., "Kinesthetic Coupling Between Operator and Remote Manipulator," <i>International Computer Technology Conference, The American Society of Mechanical Engineers</i> , San Francisco, CA, August 12-15, 1980.
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		BLISS, "Optical-to-Tactile Image Conversion for the Blind," <i>IEEE Transactions on Man-Machine Systems</i> , Vol. MMS-11, No. 1, March 1970.
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		AUKSTAKALNIS et al., "Silicon Mirage: The Art and Science of Virtual Reality," ISBN 0-938151-82-7, pp. 129-180, 1992.
		EBERHARDT et al., "Inducing Dynamic Haptic Perception by The Hand: System Description and Some Results," <i>DSC-Vol. 55-1, Dynamic Systems and Control: Volume 1, ASME</i> 1994.
		GOBEL et al., "Tactile Feedback Applied to Computer Mice," <i>International Journal of Human-Computer Interaction</i> , Vol. 7, No. 1, pp. 1-24, 1995.

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		Art Unit	<del>3688</del> 2632
		Examiner Name	<del>Unassigned</del> Mullen
		Attorney Docket Number	IMMR-104/00US
Sheet	6	of	6

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
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TM		PIMENTEL et al., "Virtual Reality: through the new looking glass," 2 <sup>nd</sup> Edition; McGraw-Hill, ISBN 0-07-050187-X, pp. 41-202, 1994.	
		"Cyberman Technical Specification," Logitech Cyberman SWIFT Supplement to Logitech Mouse Technical Reference and Programming Guide, 4/5/1994.	
		OUHYOUNG et al., "The Development of A Low-Cost Force Feedback Joystick and Its Use in the Virtual Reality Environment," Proceedings of the Third Pacific Conference on Computer Graphics and Applications, Pacific Graphics '95, Seoul, Korea, 21-24 August 1995.	
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		"Component Maintenance Manual With Illustrated Parts List, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 28 January 2002 (3 pages).	
		"Technical Manual Overhaul Instructions With Parts Breakdown, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 15 July 1980 (23 pages).	
		SCANNELL, "Taking a Joystick Ride," Computer Currents, Boston Edition, Vol. 9, No. 11, November 1994	
		YAMAKITA et al., "Tele-Virtual Reality of Dynamic Mechanical Model," Proceedings of the 1992 IEEE/RSJ International Conference on Intelligent Robots and Systems, Raleigh, NC, July 7-10, 1992	
		NOLL, "Man-Machine Tactile," SID Journal, July/August 1972 Issue.	
		ROSENBERG, "Virtual Fixtures: Perceptual Overlays Enhance Operator Performance In Telepresence Tasks," Ph.D. Dissertation, Stanford University, June 1994.	

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